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(56) Documents cited  
**GB 2244103 A US 4930909 A US 4904094 A**

(58) Field of search  
UK CL (Edition K) **F2A AD38 AD54 AD56 AD66**  
INT CL<sup>5</sup> **F16C**

(54) **Rolling bearing**

(57) In a rolling bearing, at least one of the races and rolling members is made of an alloy steel that has a residual austenite content ( $\gamma_R$ ) of 20-45 vol% and which contains 1-3 wt% Cr, and Mo in an amount ranging from one third of the Cr addition to 2.0 wt%, with the carburized or carbonitrided rolling surface having the following range of Vickers hardness ( $H_v$ ) in relation to the residual austenite content:

$$-4.7 \times (\gamma_R \text{ vol\%}) + 920 \leq H_v \leq -4.7 \times (\gamma_R \text{ vol\%}) + 1,020$$

The rolling surfaces contain fine-grained carbides and carbonitrides of average particle size 0.5-1.5 $\mu$ m, and occupying 10-30% by area.